

How we help Max not to be lonely!

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How do we memorize information about people? What kind of information do we memorize? How do we use this information in subsequent interactions with others? These are general questions in human memory research. We address these questions in the context of embodied conversational agents (ECAs).

On the hallway of our working group there lives an agent, MAX [1]. He meets a lot of people there. While MAX is an elaborate small-talk partner and many characteristics let him appear human-like, he merely remembers who he talked to and what was talked about. Therefore, MAX is very lonely without the ability to get to know others more closely over time.

In human social interaction, information about others is inevitable in order to build up long-term relationships. We propose a Person Memory for ECAs in order to enable virtual agents to remember information about people from conversation [2]. In conjunction with an Episodic Memory [3], it will enable ECAs to access relevant information about people and past interactions with them. In our scenario, Max is to recognize people he already interacted with. He will suggest topics relevant to the interest of his interaction partner and refer to past interactions. Furthermore, stereotypes and social categories will enable him to react to new interlocutors more adequately. Thus, Max will appear even more human-like to his interaction partners. He will be able to build up long-term relationships and therefore won't be lonely anymore.

References

- [1] Jung, B. and Kopp, S. 2003. FlurMax: An Interactive Virtual Agent for Entertaining Visitors in a Hallway. *Intelligent Agents. 4th International Workshop, IVA 2003, Proceedings* (p.23-26). Springer, Berlin
- [2] Mattar, N. and Wachsmuth, I. 2010. A Person Memory for an Artificial Interaction Partner. *In Proceedings of the KogWis 2010, Potsdam* (p.69-70). Universitätsverlag Potsdam
- [3] Tulving, E. 1972. Episodic and semantic memory. *In: Tulving, E., Donaldson, W. (eds) Organization of Memory* (p.381-403). Academic Press, New York